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ABSTRACT

A survey was conducted of 102 active quality circle members drawn from five organizations to determine how quality circle participation affected communication, as perceived by members themselves. The survey consisted of two parts. The first part contained ten open-ended questions inquiring about the respondent's personal experience in quality circles. The second part of the survey consisted of the communication portion of Likert's Profile of Organizational Characteristics. Follow-up interviews with 24 survey respondents provided secondary data. Analysis of the data revealed that quality circle participation had positive effects on perceived individual power/influence, communication with superiors, subordinates, and to some degree, with peers. Most respondents viewed their organization as either consultative or benevolent authoritative. Among the areas of organizational communication not affected by quality circle participation were opportunities for advancement, belong/acceptance by others, and tangible rewards. (An extensive bibliography is included.) (HOD)

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COMMUNICATION IN QUALITY CIRCLES: MEMBERS' PERCEPTIONS OF THEIR PARTICIPATION AND ITS EFFECTS ON RELATED ORGANIZATIONAL COMMUNICATION VARIABLES

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ABSTRACT

The paper reports the findings of an exploratory study of communication in quality circles. It is generally accepted in the literature that quality circles improve communication in organizational settings, yet no specific research has been conducted which explains how communication is improved. This study was conducted to investigate that question and to provide hypotheses to be tested in future communication studies.

Multiple methods of data collection and analysis were used to produce findings which would address how quality circle participation affects communication, as perceived by members themselves. A survey designed for the study included the communication portion of Likert's Profile of Organizational Characteristics and ten open-ended questions asking about participants' personal experiences in quality circles. Respondents were 102 members of quality circles from five local organizations. Follow-up interviews with 24 survey respondents provided secondary data.

Analysis of the data revealed that quality circle participation had positive effects on perceived individual power/influence, communication with superiors, subordinates, and to some degree, with peers. Most respondents viewed their organizations as operating under Likert's System 2 and System 3 management styles. Among the areas of organizational communication not affected by quality circle participation were: opportunities for advancement, belonging/acceptance by others, and tangible rewards.

The quality circle is a technique for small group problem-solving which is widely used in organizations throughout the world. As a form of small group communication within organizational settings, the quality circle concept is of potential interest to communication scholars. This paper provides background information on quality circles, summarizes and critiques the literature available on quality circles, identifies the lack of and need for communication research on quality circles, and presents findings of an exploratory study on communication in quality circles.

Definition, Origin, and Purposes of Quality Circles

A quality circle is a small group of people (usually 5 to 12) who meet voluntarily, on a regular basis, to learn and apply techniques for identifying, analyzing, and solving work-related problems (Dewar, 1980). Normally, the circle leader is the regular work leader/supervisor. Members are given training which allows them to use their meeting time effectively. The hour per week spent in quality circle meetings is usually company-paid time.

The quality circle technique was conceptualized by Americans and introduced to Japanese industry some twenty years ago as an outgrowth of training efforts to instill advanced quality improvement concepts at the worker level. Experiments with quality circle techniques began in the United States around 1969, but the idea has found its greatest acceptance here in just the past four years. It was estimated in 1982 that over 1,500 U.S. work sites had functioning quality circles (Seelye, Stewart, & Sween). In 1983, 25,000 quality circles were said to be operating in the U.S. (Barra). Undoubtedly, those figures are even larger now.

Quality circles, as generally understood, have dual purposes. One set of goals deals with increased productivity and quality improvement. The

problems explored by quality circles are often the energy and time-consuming nuisances which prevent workers from doing their assigned work to the fullest capacity. Spending concentrated time on these problems allows for solutions to be generated which improve the group's efficiency and thereby raise both the workers' productivity level and the product quality level.

The second set of goals deals with employee involvement. It is assumed that the workers themselves know more about their problems than anyone else; therefore, they are best qualified to find the solutions. It is also assumed that involving people directly in decisions which affect them increases their feelings of accomplishment, pride, self-esteem, and self-fulfillment. With such feelings comes a higher level of commitment to the job and to the organization.

Clearly, this orientation toward meeting both organizational and individual needs explains the widespread and growing interest in quality circles. At a time in history when multiple and often conflicting economic factors necessitate a focus on productivity, organizations throughout the world are searching for ways to stay afloat financially. At the same time, workers with increasing knowledge and sophistication expect more fulfillment from their jobs. The movement toward fuller use of workers' talents, which is facilitated by quality circles, at least partially meets both sets of needs.

In order to make fuller use of workers' knowledge, many organizations are moving in the direction of participative management styles. Participative management, a theory developed by Rensis Likert in the early 1960's, is the guiding principle underlying the quality circle concept and is a means of expanding the organization's communication channels to involve more members in decision-making and problem-solving (Likert, 1961). Traditionally, most U.S. organizations have been hierarchically structured, with lines of author-

ity and communication moving primarily from the top down. Such structures are not designed to promote democratic interaction; instead they tend to foster competition and dependence on authority figures. As a result, the organization does not receive the maximum positive input from its members.

In recent years, the exclusive use of hierarchical structure in organizations has been challenged. Due in part to the Human Potential Movement of the 1970's, with its emphasis on individualistic thinking, equality, and human rights, today's workers want more control over their work environments. Evidence for this claim is found in the growing interest shown by U.S. industry in quality of worklife programs (Walton, 1973). The participative style of management allows workers to participate more fully in organizational business and thereby enhances their feelings of autonomy. The organization's interaction-influence network is expanded to include lines of communication moving not only downward, but upward and laterally as well (Likert, 1961). The result is a subtle and gradual shifting of the balance of power among organizational members (Thompson, 1982). This redistribution of power has both positive and negative implications which can be discerned through examination of the literature on quality circles.

Summary and Critique of Quality Circle Literature

Most of what has been written about quality circles appears in recent books, business journals, and periodicals. These writings focus on two broad themes: the benefits gained from using quality circles and the problems encountered with their use. Articles in the first category provide information concerning what works well in current quality circle practice. Articles in the second category tell us what is not working and thus, what may need investigation and subsequent revision.

One of the primary benefits gained with quality circle use is productivity improvement resulting from the efficient problem-solving efforts of circle members. Workers with first-hand knowledge of work-related issues provide the most valuable input to problem-solving and thereby improve product quality (Cole, 1980; Dewar, 1980; Mazique, 1981).

Improved productivity has positive effects on worker morale as manifested in such measurable behaviors as absenteeism rates, attrition rates, grievances filed, and suggestions offered through company suggestion systems (Hunt, 1981; Rieker & Sullivan, 1981). Quality circle members develop new skills which benefit the organization as well as themselves; examples of these skills are: problem-solving methods, statistical analysis techniques, leadership skills, and interpersonal communication skills (Mazique, 1981).

Positive effects on communication can be seen at all levels of the organization using quality circles (Antilla, 1981). Workers develop an increased sense of identity with the organization's goals and conflict between workers and managers is reduced (Mazique, 1981). Supervisors grow in confidence and develop better leadership skills (Lewis & Rooney, 1981). Quality circle participation offers members and leaders a much-needed form of recognition, which is frequently underestimated by U.S. managers as a motivational tool (Cole, 1980). The worker's self-esteem is enhanced through the freedom of self-expression, equality, and respect for his/her human dignity and individuality promoted through the quality circle process (Barra, 1983; Dewar, 1980; Ingle & Ingle, 1983; Mohr & Mohr, 1983; Thompson, 1982). One might conclude from these writings that quality circles serve as a panacea for all nature of organizational problems.

Yet, quality circles themselves are not problem-free. It is not difficult to understand why problems are surfacing if we consider the cultural

differences existing between the U.S. and Japan (where quality circles were developed), and between organizations within a given culture. In order for the quality circle technique to work well over time, an organization's basic philosophy should be compatible with the goals of participative management theory. A central goal is involvement of all organizational levels in problem-solving and decision-making, as mentioned previously. This orientation changes the traditional hierarchical power balance to some degree and may be the key to many problems emerging in quality circles.

One frequently-cited problem concerns middle managers who feel bypassed in the quality circle process and consequently sabotage circle efforts when they perceive their authority as undermined (Cole, 1980; Cook, 1982; Imberman, 1982; Ingle, 1982; Mazique, 1981; Mohr & Mohr, 1983; Thompson, 1982). Supervisory personnel are often caught in role conflicts since they are typically asked to serve as quality circle leaders. As supervisor, the person is in charge of overseeing subordinates' work; as circle leader, he/she becomes a discussion moderator who facilitates problem-solving. Many individuals experience difficulty in enacting these dual roles (Cole, 1980; Dewar, 1980; Mazique, 1981).

Other typical problems arising from quality circle implementation include: interference from labor unions who think workers are being exploited (Cole, 1980; Ingle, 1982; Mazique, 1981); insufficient or improper training of personnel involved in quality circles (Barra, 1983; Dewar, 1980; Ingle & Ingle, 1983; Mohr & Mohr, 1983; Thompson, 1982); lack of attention to such developmental issues as "burnout" and interpersonal conflict (Cronin, 1983; Metz, 1982; Mohr & Mohr, 1983); lack of adequate reward systems for quality circles' work (Cole, 1980); lack of adequate acceptance and support of quality circles' ideas (Cole, 1980; Ingle, 1982; Mazique, 1981; Thompson, 1982).

One factor which may contribute to the repetitive nature of these problems is the lack of formal research into what can make quality circles effective and enduring. The problems just described are anecdotal in nature, leaving to the reader the task of finding any predictable patterns which may exist.

Unfortunately, a prime limitation of the research that has been done is also its lack of generalizability. Of the relatively small number of formal studies conducted on quality circles, many have been feasibility studies which have been funded and produced by specific interest groups. Most of these merely make a case for the use of quality circles by that specific sector (Atwater, 1981; Bureau of Mines Research Center, 1981; Gomez, 1983; Goodman & Ruch, 1982; Harper & Jordan, 1982; Jeys, 1982; Munchus, 1983; Stevens & Moore, 1981; White, 1981; Younker, 1982). Several studies which perform a similar function, that of establishing feasibility, focus on quality circle usage in educational settings (Cline, 1983; Gonnet, 1983; Sanders, 1983).

A very limited number of formal studies on quality circles deal with selected aspects of their implementation and outcomes. Results of these studies lay the groundwork for further understanding the ramifications quality circles hold for organizational behavior as a whole. For example, several studies have investigated aspects of quality circle start-up, such as the pros and cons of various types of training (Benscoter, 1983; Dean, 1983; Moran, 1982; Shlemmer, 1983). Their results provide quantified information which can be used by practitioners starting their own programs. Results of studies which have investigated outcomes attributed to quality circle usage (e.g., the effects on productivity, perceived quality of worklife, and organizational effectiveness) can serve as predictors of quality circle outcomes in other settings (Benjamin, 1982; Gomez, 1983; Hendrix, Ovalle, Steel, & Lloyd, 1982; Hunt, 1981; Srinivasan, 1982; Zahra, 1982). These types of

results can be most useful in building a body of knowledge about quality circles which is generalizable, and can thus be added to and passed on.

References to quality circles' positive impact on organizational communication are common throughout both the anecdotal and research literature reviewed, yet no work was found which dealt specifically with communication behavior in quality circles. The essence of the quality circle concept is communication. Among the fundamental goals of quality circle implementation is the improvement of communication within work groups and within the organizations to which those groups belong (Dewar, 1980). To prepare them for participation in quality circles, members are given training in skills taught in many communication courses, such as problem-solving, decision-making, group dynamics, leadership, and oral presentation skills. Quality circles are by definition small groups which accomplish their goals through the process of communication; they function in organizational settings and generate solutions to problems ultimately affecting multiple areas of that organization. The study of quality circles provides an opportunity to observe small, democratic groups operating in typically large, autocratic systems. Yet, in spite of the numerous communication research questions for which quality circles could provide rich sources of data, little interest in the topic has been shown by those in our discipline. The research reported here is apparently the first study of quality circles from a communication perspective.

It appears likely that the quality circle phenomenon will continue for some time, considering the number of people and dollars involved and the rates of success reported by those currently using the technique. Should organizations continue to move toward participative management practices, including quality circles, the resulting changes in power distribution and communication norms will provide many areas worthy of study by scholars of small group and

organizational communication.

Purposes of the Study and Methods Used

The research described here was designed as an exploratory study, intended to reveal potential directions for future communication studies of quality circles. The claim that quality circles improve communication in organizational settings appears to be accepted as fact among quality circle practitioners and theorists. Since no attempt has been made to elaborate beyond this general claim, the author chose to explore the area of communication in quality circles using the following primary research questions as guides: (1) how does quality circle participation affect communication in organizational settings, as perceived by members themselves? and (2) how does quality circle participation affect members' perceptions of their organization as a whole?

Three variables were investigated to address the first question: power/influence, opportunities for advancement, and belonging or acceptance by others in the organization. These are considered key variables determining organizational behavior (Kanter, 1977). Other variables investigated were communication effectiveness with superiors, peers, and subordinates, and rewards associated with quality circle participation, all based on organizational behavior theory developed by Likert (1961).

Variables which addressed the second research question were: amount of communication aimed at achieving organizational objectives; usual direction of information flow; where downward communication is initiated; how downward communication is accepted by subordinates; adequacy of upward communication via the line organization; subordinates' feelings of responsibility for initiating accurate upward communication; forces leading to accurate or distorted upward communication; accuracy of upward communication via the line organi-

zation; need for supplementary upward communication system; sideward communication, its adequacy and accuracy; psychological closeness of superiors to subordinates; accuracy of perceptions by superiors and subordinates (Likert, 1961).

These particular variables were selected for investigation because of their relevance to the theoretical principles which form the basis for participative management and quality circles. The goals of the study were to uncover new information about how communication in organizations is affected by the use of quality circles, and to produce hypotheses which can be tested in future studies.

Multiple methods of data collection and analysis were used to provide the study's findings with both depth and breadth (Albrecht & Ropp, 1982; Faules, 1982; Huff, 1981; Kanter, 1977; Louis, 1981). The sample population consisted of 102 active quality circle members drawn from five organizations each of whose quality circle program was at least one year old and who were diverse in size, nature of business, and types of workers. Such diversity was thought useful in producing findings of greater generalizability than would a homogeneous sample. The companies involved ranged from high tech to factory organizations.

The primary source of data was a survey instrument designed by the researcher. The instrument was pilot tested and revised twice before data for the study were collected. The survey consisted of two parts. The first part contained ten open-ended questions inquiring about the respondent's personal experience in quality circles. The second part of the survey consisted of the communication portion of Likert's Profile of Organizational Characteristics. Respondents willing to participate in a follow-up interview were asked to indicate their willingness on a return post card. A cover letter explained

the purpose of the research, promised confidentiality, and collected information on age, sex, race, level of current job, length of time with quality circles, and length of time with the company.

Responses to the open-ended questions in Part I of the survey were analyzed as follows. First, the constant comparative method of analysis was used to identify categories of responses (Glaser, 1969). Second, categories were collapsed into 3 to 5 larger categories. Third, 3 outside judges tested the categories against the raw data; the interjudge reliability rate was 85-88%. Fourth, final categories were assigned numbers and labels to facilitate computer procuedures. Fifth and finally, contingency tables and chi square values were calculated and utilized to reveal relationships between selected variables from the written responses.

Ratings from the twelve scales in Part II of the survey were assigned numbers from 1 to 4 according to where they were marked by respondents. The numbers 1 through 4 corresponded to Likert's four systems of management: 1 = Exploitative Authoritative, 2 = Benevolent Authoritative, 3 = Consultative, and 4 = Participative Group. The twelve responses of each individual survey were numerically averaged to obtain the respondent's composite rating of his/her organization's communication processes. Through the use of crosstabulations and chi square values, relationships were investigated between various combinations of variables from Parts I and II. For example, one relationship investigated was that between an individual's perceived power/influence (Part I) and his/her feeling of responsibility for initiating accurate upward communication (Part II).

Twenty-four survey respondents participated in supplementary follow-up interviews to serve as a vehicle for clarification of or elaboration on points brought up in the written survey responses, to provide insights and details

above and beyond what was called for in the survey, and to allow some evaluation by the researcher of reliability and validity of the written data. Interview questions were constructed from each person's individual written responses rather than from a standard interview guide. Interviews were conducted by telephone and lasted between 15 and 60 minutes. Interviewing by telephone was considered to be an effective means of acquiring the desired information (Groves & Kahn, 1979; Schuman and Presser, 1981).

Results and Discussion

A brief description of the sample population may facilitate the reader's understanding of the reported findings. Of those who participated, 81% were male, 87% were non-supervisory employees, and 76% were Caucasian. Participants' ages and length of time with companies were fairly evenly distributed among the various categories, but length of time with quality circles showed 58% in the category of one year or less participation. (See Appendix A for a complete breakdown).

Part I of the survey investigated personal experiences with quality circles. Respondents were asked how they first heard of quality circles and why they decided to join. Over half said they had been informed through promotional efforts of their company. Forty-four percent heard of quality circles through coworkers or supervisors and 11% heard from outside sources. Almost 70% said they joined quality circles on their own volition; the other 30% said they joined at the suggestion of either coworkers (11%) or superiors (19%). Since voluntary participation is generally accepted in the literature as a key to successful quality circle programs, one could question the fact that 30% of these respondents were "talked into" joining.

When asked to describe their own participation in quality circles, almost

half the respondents said their contribution was relatively equal to others'; approximately 40% said their contribution was relatively major, and about 10% said their contribution was minor or situationally varied. These figures seem to indicate that once involved in a quality circle program, regardless of the reasons for joining, most people become interested enough to contribute at least an equal share to the process. It would appear that participation in quality circles may be enhanced by peer pressure or simply by the group spirit. If a significant portion (30% in this sample) of quality circle participants join somewhat reluctantly, but then contribute equal or major participation once they become part of the process, the implication is that the process itself serves to elicit contributions from members.

When asked how quality circle participation had affected their personal power/influence with others, 43% reported no effect or negative effects. The remaining 57% said there had been effects, but that these were mostly indirect effects, such as greater influence through membership in the group. Only about 25% described a direct effect on their personal influence with others. It was evident from both the written and interview responses that many people had a negative attitude toward the concept of power, and that responses were colored by the pre-existing attitudes.

In describing their communication effectiveness with superiors resulting from quality circle participation, almost 75% said this area had improved. Of those who described no improvement, many qualified this response by saying that communication with superiors was already good prior to quality circles. On the subject of communication effectiveness with peers, about 66% reported this had improved as a result of quality circle participation. It was learned through the interviews, however, that the improved peer communication had occurred mostly with other quality circle members, and that in many cases,

communication with peers outside of quality circles had actually gotten worse. In regard to communication effectiveness with subordinates, only 14% of the respondents had any subordinates, but of those, the majority said there was improvement. One may infer from these findings, then, that superior/subordinate communication is improved through quality circle participation and that peer group communication is improved among quality circle members, but not necessarily with non-members.

The survey asked how participation in quality circles had affected perceived opportunities for advancement in the organization. Sixty percent reported they had seen no effect. Of those who indicated there had been some effect, most said it was a possible effect. It would seem that perceptions of positive effects on personal power/influence and improved communication with superiors would result in perceptions of greater opportunity for advancement, but apparently advancement in the companies polled is perceived to be achieved through other means.

Respondents were asked how quality circle participation had affected their sense of belonging or acceptance by others as an important member of the organization. Almost two-thirds of the sample saw no effect in this area. In many cases, such statements were qualified with remarks concerning the equal status of all in the organization prior to and regardless of quality circles. It is important to note, however, that the sample consisted primarily of white males whose type is predominant in their organizations. The responses of females and minority group members indicated that they were aware of the acceptance factor. Female respondents, especially, did not feel as readily accepted as males. They more often stated that quality circle participation had helped them gain visibility and credibility.

When asked how they were rewarded for their quality circle participation,

about 75% perceived either no rewards or internally-perceived rewards, such as personal satisfaction gained from making a contribution to the company. Only 25% said there were rewards from external sources (referring to actual, tangible rewards or recognition from management). Of the 75% who saw no rewards, most said they were satisfied with that system, that quality circle members should not work for rewards, only for the satisfaction to be gained from helping solve problems and thereby making the company a better place. However, many of the same people also said they would like more recognition and support from management. The contradiction built into these remarks may indicate that a certain amount of "brainwashing" has taken place. That is, respondents may have been led to believe they should be happy with personal satisfaction when, in fact, they actually want more tangible rewards.

When asked whether they had ever thought of quitting quality circles, 60% of the respondents said no. Forty percent had thought of quitting for various reasons, such as communication problems within the quality circle, conflicting time demands between circle responsibilities and one's regular job, frustration over the slowness of the process, and inadequate support from management. Of those who had thought of quitting, many said they decided to stay because they believed in the process or because they saw the process as the only vehicle they have for being heard by management.

Part II of the survey was the communication portion of Likert's Profile of Organizational Characteristics. It consisted of twelve statements about how the organization's communication processes work and required ratings on numerical scales, which were averaged together to produce one composite rating. Fifty-one percent of the respondents rated their organizations as System 3, Likert's Consultative management style. Forty-one percent rated their companies as System 2, the Benevolent Authoritative style. Two percent rated their

companies as System 1, the Exploitative Authoritative style, and 7% rated their organizations as System 4, the Participative Group style of management.

These findings could be interpreted negatively if we focus upon the 42% of System 1 and 2 ratings, and the mere 7% of System 4 ratings, when in fact quality circles are supposed to be a tool of participative management. On the other hand, a more positive interpretation is possible is we focus upon the 58% of System 3 and 4 ratings. Considering that most U.S. organizations have always been managed under traditionally authoritarian models, and the trend toward more employee involvement is only a few years old, the 58% could be viewed as a significant and fast change.

Crosstabulations performed to connect and compare information from Parts I and II of the survey produced mostly inconclusive findings. Specifically, the crosstabulations compared the following variables: (1) the individual's composite rating of organizational communication to his/her self-described participation in quality circles; (2) individual power/influence to feelings of responsibility for initiating accurate upward communication; (3) perceived communication effectiveness with superiors to ratings of accuracy of upward communication; (4) perceived communication effectiveness with superiors to ratings of psychological closeness between superiors and subordinates; (5) perceived communication effectiveness with superiors to ratings of accuracy of perceptions between superiors and subordinates; (6) perceived opportunities for advancement to ratings of forces leading to accuracy or distortion of upward communication; (7) perceived opportunities for advancement to ratings of upward communication accuracy via the line organization; (8) perceived acceptance by others to ratings of sideward communication; (9) perceived rewards for quality circle participation to ratings of adequacy of upward communication; (10) perceived rewards to ratings of the need for a supplementary

upward communication system; and (11) perceived rewards to ratings of psychological closeness between superiors and subordinates. Only one of the cross-tabulations produced a chi square value of statistical significance ($p \leq .05$). That was the comparison of respondents' feelings of power/influence to their feelings of responsibility for initiating accurate upward communication (i.e., their freedom to speak openly to superiors). Those who felt empowered rated their organizations higher (closer to System 4) on the responsibility taken by members for initiating accurate upward communication.

It is interesting and somewhat puzzling that more significant and conclusive findings did not result from these comparisons. Possible explanations may be that: respondents did not understand the wording of Likert's statements; quality circles may not be operating as intended, i.e., according to theories upon which they are based; the sample may not have been large enough to produce consistent findings; or organizational problems may have been reflected in the survey responses.

The interviews, for the most part, supported comments in the written responses. Detailed information obtained from these conversations provided the researcher with insights which aided in the interpretation of the results and are reflected therein.

Conclusions and Hypotheses

Most people had never heard of quality circles before being introduced to them by their company, implying that the quality circle concept is publicized and promoted in organizational settings and is not necessarily known to the general public. Though the majority of members joined voluntarily, many did so with skepticism. The fact that a significant portion joined somewhat involuntarily, meaning under pressure from superiors or coworkers, calls

into question the assumption made in the literature that voluntary participation is a prerequisite to successful quality circle programs. However, once they are involved in the process, regardless of their reasons for joining, people contributed either relatively equal or relatively major participation. Thus, the process itself appears to promote participation.

Quality circle participation was seen as having effects on power/influence for over half of those responding. It was concluded that power is defined and understood differently by different people and that it is about equally as likely to be construed in a negative way as in a positive way. If a respondent held a negative attitude about power/influence, he/she would not be likely to describe himself/herself as having more power due to quality circle participation.

Opportunities for advancement were perceived as unaffected by quality circle participation for most of the study's participants. Of those who thought there was an effect, that opinion was based largely on speculation. It was concluded that quality circles are not viewed as a useful "stepping stone" in the companies polled.

Quality circle participation apparently does not provide a consistent means for being accepted by others in the companies polled. However, since the participants were predominantly white male, the conclusions regarding acceptance have somewhat questionable reliability. Based on the limited data collected from women and minorities, there were indications that acceptance is a problem potentially helped by quality circle participation.

Participation in quality circles has an overall positive effect on communication effectiveness with superiors, peers, and subordinates. On communication effectiveness with superiors, distinctions were drawn by respondents between the various levels of management, indicating that improved communica-

tion with some does not necessarily imply improvement with all superiors. For example, it was more common for communication with a respondent's immediate superiors to be reported improved, while communication with upper management remained the same. The same conclusion was drawn in regard to communication effectiveness with peers; while some peer relations are significantly improved (usually meaning with other quality circle members), others are worsened by quality circle participation. Again, though, the overriding effects were the positive ones. Based on a fairly small subsample of respondents having subordinates, the effects reported on communication with those subordinates were positive.

The great majority of quality circle members who took part in the study perceived rewards for their efforts, but most of those rewards were internally based. Another conclusion is that reward systems in the companies polled may be inadequate and need upgrading to insure the long-term success of the programs.

The problems existing with quality circles, both inside the circles and within the organizations they are part of, often lead to members' thoughts of quitting. In spite of the difficulties, however, quality circle members are generally committed to the concept and genuinely want it to succeed. Many indicated that quality circles are one of the very few upward communication channels they have.

In rating various aspects of their organizations' communication processes, respondents in the study followed a consistent pattern of rating these as System 3 (Consultative) most often and System 2 (Benevolent Authoritative) almost as often. It was concluded that the organizations involved are not perceived to be operating in the Participative model upon which quality circles are theoretically based, according to these participants. The fact that half

the respondent ratings fell into the System 3 category may indicate that these companies are moving in the direction of participative management, knowing they have always been hierarchically structured in the past.

The following hypotheses are offered as bases for further investigations of quality circle communication:

1.) The degree of a quality circle member's participation is not affected by his/her reasons for joining.

2.) The degree of personal power/influence an individual perceives as resulting from quality circle participation is dependent upon his/her preconceived definitions of power and influence.

3.) An individual's opportunities for advancement in the organization are not affected by quality circle participation.

4.) An individual's acceptance by others as an important member of the organization is affected by quality circle participation most if that person is a woman or a minority group member.

5.) Communication effectiveness with superiors is positively affected by quality circle participation.

6.) Communication effectiveness with subordinates is positively affected by quality circle participation.

7.) Communication effectiveness with peers is both positively and negatively affected by quality circle participation.

8.) If few tangible rewards are available for quality circle efforts, an individual will compensate by structuring internal rewards.

9.) The more personal power/influence an individual attributes to himself/herself, the more responsibility will be felt for initiating accurate upward communication.

Implications and Recommendations

Quality circles are described as a tool of participative management. The purpose of this tool and others like it is to empower both an organization and its members by making use of the knowledge and creativity of all levels in order to maximize both productivity and human resource potentials. Likert described a participative style of management (System 4) as one characterized by: information flowing in all directions with accuracy and adequacy, high levels of knowledge and understanding by superiors of problems experienced by their subordinates, substantial cooperative teamwork throughout the organization, employees fully involved in all decisions related to their work, and motivation accomplished with economic rewards based on compensation systems developed through participation.

The study's findings imply that the preceding criteria are not being fully met by these organizations using the quality circle technique. Most respondents rated their organizations as either Consultative (System 3) or Benevolent Authoritative (System 2). The rather large number of System 2 ratings, in particular, call into question those organizations' motives for using quality circles. According to theory, an ideal situation for successful use of quality circles is one in which the circles program is part of a larger change effort. Without the sense that their organization is sincerely trying to equalize power to some extent, or that management is at least genuinely interested in gaining their input to decision-making, it would seem that quality circle members may feel manipulated and eventually lose interest in the process. In this study, there were indications of this happening in some cases where respondents did not feel adequately rewarded for their efforts.

The findings reported here reveal that while some of the areas investigated have been positively affected by quality circle implementation, there

are still many important aspects of organizational communication which remain virtually unchanged. The findings of this study showed that quality circle participation produces mixed results on power, opportunity, and belonging. We can conclude that circle members get their needs for power, opportunity, and belonging met at least partially through other channels. Yet, theoretically, quality circles should provide a primary channel for meeting these needs. The implication is that either individual needs are not being adequately addressed through quality circles or that the individuals involved are simply not aware of the potential benefits quality circles offer them as individuals.

The results found here imply that quality circles have a positive impact on superior/subordinate relationships. The implication is that quality circles do have the potential for opening up both intragroup and intergroup communication in organizational settings.

It may be that some organizations currently using quality circles are not actually trying to move toward a participative style of management, but are instead merely trying to boost productivity figures by jumping on the quality circles "bandwagon." In some cases, the move toward participative management may not be realistic or advisable, given the nature of the business or the organizational culture which exists. Therefore, writers, researchers, and theorists on quality circles need to exercise caution in assuming that any organization using quality circles has participative management.

Many of the areas explored in this study could benefit from further investigation. The areas which address individual needs of circle members (power, belonging, and rewards), in particular, deserve further study. It is recommended that these topics be studied with at least equal proportions of women and minority group members as participants.

It would be useful to replicate the exact study presented here using different samples. For example, a sample of people with the same length of time in quality circles would be useful since there are indications that this factor can affect perceptions of the overall quality circle process, and since there seem to be stages of development that quality circles go through as groups. A sample with homogeneity in regard to participants' ages might provide further insights into the expectations various age groups hold for quality circle participation, particularly in how their advancement opportunities are likely to be affected.

Quality circle practitioners could benefit from further investigations focusing on the reward systems associated with quality circle efforts. There was evidence in this study that many reward systems currently operating are inadequate and could hamper the long-term survival of circles. Studies focusing on the negative attitudes of non-members of quality circles could also be helpful to practitioners, since these attitudes seem to indicate problems in the organization's communication practices.

It is recommended that in future studies using the Likert instrument, pre-testing of the instrument be conducted with potential participants to determine whether or not the language of the instrument can be sufficiently understood. Supplementary personal interviews with pre-test respondents would provide specific feedback to the researcher concerning which (if any) items were not understood. Such pre-testing is especially relevant where participants have a minimum of formal education.

Finally, investigation is needed into the specific, long-term goals of organizations using quality circles and how well those goals are communicated to various levels of personnel. According to theory, in organizations with participative management, the process of defining and carrying out goals is

equally shared by all members. If such sharing were to take place, many of the uncertainties and frustrations currently associated with quality circle practice could be alleviated. Circle members would have access to the information they most need, such as where their company is headed, what are the long-term and short-term rewards they can anticipate, and what they can do to get their ideas heard and implemented. If an organization using quality circles does not intend to implement such sharing of information and power, it should not be labeled automatically as having participative management simply because it is using the quality circles technique. Thus, the emerging body of literature pertaining to quality circles may need to re-examine some basic assumptions about the practice which have been made in the past.

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